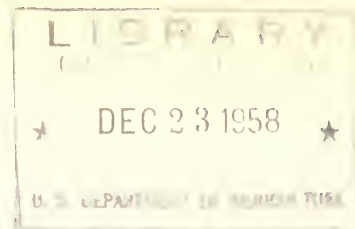


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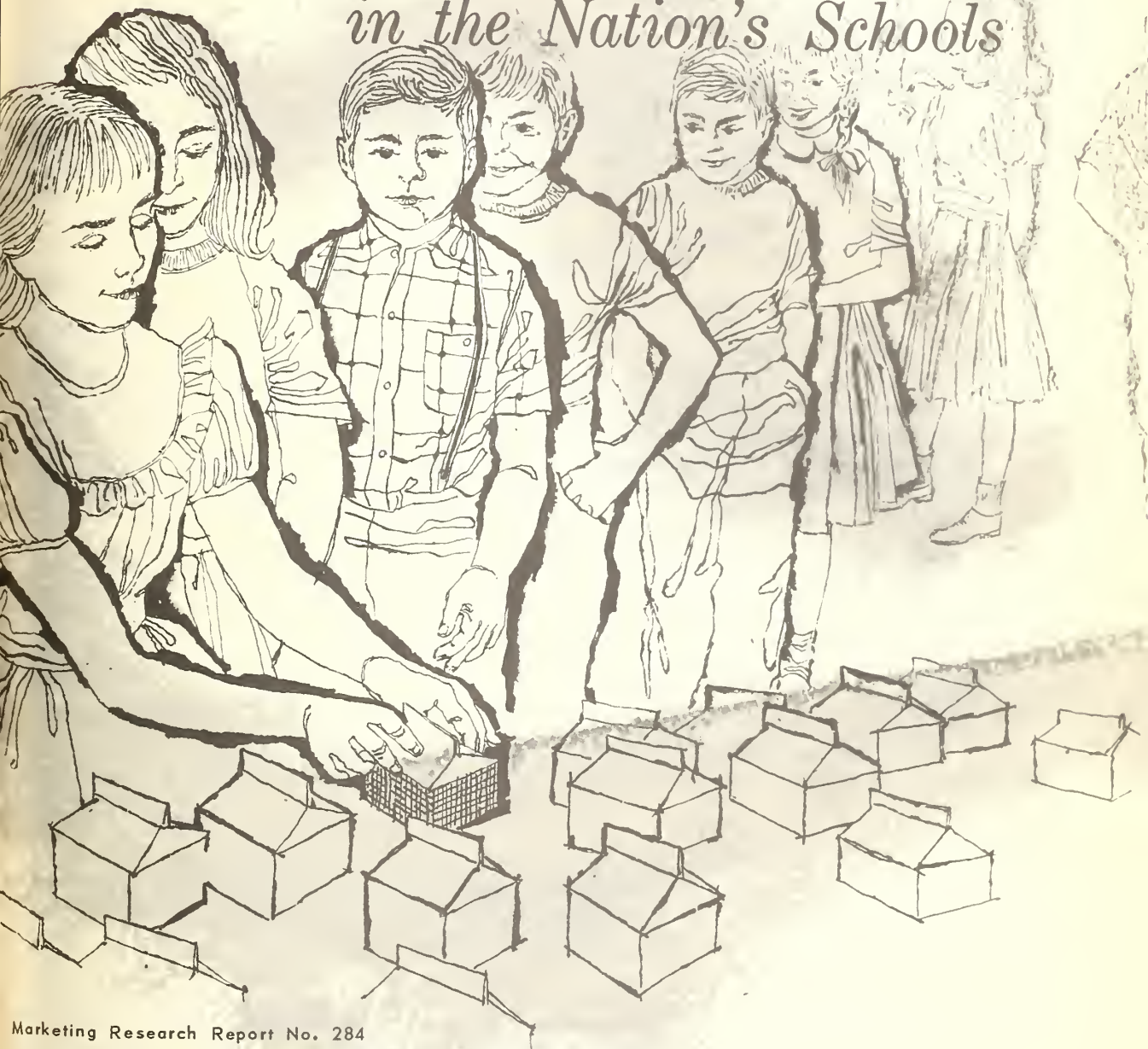
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MILK CONSUMPTION

in the Nation's Schools



Marketing Research Report No. 284

UNITED STATES DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service
MARKETING RESEARCH DIVISION

PREFACE

This study of consumption of milk in schools in the United States is part of a broad program of research to expand markets for farm products.

Appreciation is expressed for the cooperation of the many school officials who made available the data upon which this report is based. Special acknowledgement is made to Allen D. Marvel, Chief, Governments Division, Bureau of the Census, and his staff.

This study was conducted under the direction of Robert M. Walsh, Chief, Market Development Branch, Agricultural Marketing Service. William S. Hoofnagle of the same Branch rendered valuable assistance in the analysis of data and preparation of this report. Officials of the Food Distribution Division, particularly S. C. Vanneman, Chief, Program and Analysis Branch, gave valuable assistance in the planning of the study.

CONTENTS

	<u>Page</u>
Summary.....	1
Introduction.....	2
School participation in milk programs:	
Schools serving milk.....	4
Schools in Special Milk Program.....	4
Milk sold.....	5
Prices paid for milk.....	7
Vending machine and other milk service.....	7
Frequency of milk service.....	7
Appendix:	
Methodology.....	8
Schedule.....	10
Tables.....	12

November 1958

The Library of Congress catalog
entry appears at the end
of this publication.

MILK CONSUMPTION IN THE NATION'S SCHOOLS

BY

Kenneth E. Anderson, Market Development Branch
Agricultural Marketing Service

SUMMARY

This study discloses the extent of milk services in the Nation's public schools. Daily consumption of milk per pupil averaged 0.7 half-pint in schools participating in the Special Milk Program during the survey period, 40 percent more than the average of 0.5 half-pint in other schools serving milk, according to a study by the Agricultural Marketing Service. About half the milk consumed in schools was with plate lunches and the other half was consumed at other times, as an a la carte item, or as a supplement to packed lunches.

Children in public elementary and secondary schools purchased 409 million half-pints of milk during the month of the survey.

Of this total, 186 million half-pints were consumed with meals by children participating in the National School Lunch Program. An additional 204 million half-pints were sold in schools participating in the Special Milk Program which includes most of the schools in the National School Lunch Program as well as other schools. These two programs accounted for 390 million half-pints or about 95 percent of all milk sold in public schools. These estimates are based on a survey of 4,347 schools selected on a probability basis to represent all public schools below the college level.

Pupils paid an average of 3.1 cents per half-pint for milk in schools participating in the Special Milk Program, nearly 50 percent less than the average of 5.9 cents charged in other schools. For schools participating in both the National School Lunch and Special Milk Programs, the average price paid was still lower--2.9 cents. 1/

The present report shows the consumption of milk in schools by type of lunch service, regions, population density, size of school in terms of enrollment, and by grade level, that is, elementary grade, high school, and combination grades.

Not all public schools serve milk. Of the approximately 106,000 public elementary and secondary schools in the country, 79,000 or 74 percent had some form of milk service during the survey period, March 1957. Almost all of the schools serving plate lunches had milk service, both those under the

1/ In an earlier study covering 2 major cities, it was found that with a reduction of about 50 percent in price made possible by participation in the Special Milk Program, consumption of milk per pupil increased 50 to 100 percent. Anderson, Kenneth E., "The Special Milk Program, its effect on consumption in St. Louis and Los Angeles Schools." U. S. Department of Agriculture, Marketing Research Report No. 209, January 1958.

National School Lunch Program and other schools serving plate lunches. Milk was served in 85 percent of the schools having a la carte lunch service and in 43 percent of the schools without lunch service.

The proportion of schools serving milk was highest in the Northeast and Southeast, and lowest in the Midwest. But the Midwest showed a greater total volume of milk consumed than other regions, reflecting a larger number of schools, lowest average prices in schools in the Special Milk Program, and highest average daily consumption per pupil for schools serving milk.

More schools in urban areas had milk service than those in rural and semirural areas. This was true also for schools having larger enrollments compared with small ones and for secondary and combination-grade schools compared with elementary schools. Nevertheless, total milk sales were greatest in the less densely populated areas and in elementary schools, reflecting primarily the relatively larger number of schools in these two categories. In addition, average daily milk consumption per pupil was highest in the less densely populated counties, small schools, and in the elementary and combination grades.

A relatively small proportion of schools serving milk had milk vending machines, 4 percent. Schools using only vending machines accounted for 3 percent of all schools serving milk and an additional 1 percent used vending machines as well as other types of service.

Consumption of milk per pupil was higher on the average in schools serving milk at noon and/or at other times than in schools serving milk at noon only. This was true for all types of lunch services.

In making a large-scale survey of school officials to obtain data on milk consumption in schools there was no opportunity to measure the consumption of milk by pupils in their homes and elsewhere. Consequently, it is not possible to state whether milk consumption by pupils outside of school was increased, decreased, or unchanged as a result of higher consumption in schools following introduction of the Special Milk Program.

INTRODUCTION

This study was conducted to evaluate the effects of certain factors such as price and frequency of service on milk consumption in the Nation's schools. It is part of a broad program of research designed to expand the market for agricultural commodities. Comparative data were obtained on milk consumption for schools participating and those not participating in the School Lunch and Special Milk Programs during March 1957. Data were tabulated by population density of the areas served by schools, size of school in terms of enrollment, and grades taught, that is, elementary, secondary, and combination grades. In tabulating the survey data by these characteristics, it was assumed there would be differences in pupils' milk consumption (1) in the less densely

populated areas compared with the metropolitan areas; (2) in large and small schools; and (3) according to age, as indicated by elementary grades and secondary grades. It was anticipated that the study would either substantiate or negate the hypothesis that differences would occur among pupils attending schools under such varied conditions. Findings are based on a representative national sample of 4,347 of the approximately 106,000 public elementary and secondary schools. ^{2/} Sample selection, collection, and tabulation of data were performed by the Bureau of the Census for the Department of Agriculture.

The serving of milk to children has been an established practice for years in many schools. Although a large proportion of schools having a feeding program serve milk to pupils, there are also many schools without full-scale feeding programs that serve milk only.

The Special Milk Program was initiated in public and private schools September 1954, pursuant to Public Law 690, 83rd Congress, which amended a price support provision of the Agricultural Act of 1949. The purpose of the legislation was, in the language of the Act, "... to increase the consumption of milk by children in nonprofit schools of high school grade and under." In the 1955 fiscal year \$50 million was authorized for the program, \$60 million for the following year, and \$75 million for each of the 1957 and 1958 fiscal years. Beginning with the 1957 fiscal year the program was broadened to include summer camps, nursery schools, orphanages, and similar child-care institutions.

To the extent permissible under State and Territorial law, administration of the program in the States and Territories is the responsibility of the State department of education or other designated agencies of the State. The Agricultural Marketing Service administers the program directly in private schools and child-care agencies in States where no State agency is authorized to administer such programs.

In schools where a part of the cost of milk was reimbursed by the Federal Government, a sizable increase in consumption has occurred since the inception of the Special Milk Program. Schools operating under the program served 450 million half-pints in fiscal 1955; by 1957 the volume of milk had risen to almost 1.8 billion, an increase of 290 percent. ^{3/}

^{2/} The Special Milk Program is designed to operate in private schools and summer camps as well as in public schools. However, in this study data were not obtained on the consumption of milk in such outlets.

^{3/} Agricultural Marketing Service. "Special Milk Program for Children, A Statistical Review of Program Progress 1955-1957," mimeographed, August 1957.

SCHOOL PARTICIPATION IN MILK PROGRAMS

Schools Serving Milk

Three out of four public schools in the U. S. served milk to pupils in March 1957, (tables 1 and 2). Nearly all of the schools serving plate lunches served milk. Eighty-five percent of the schools having a la carte service and 43 percent of the schools without lunch service served milk to pupils. 4/

Regionally, the Northeast and Southeast had the highest proportion of schools with milk service, while the Midwest, with the largest number of schools, had the lowest proportion serving milk.

Milk service was more likely to be found in schools in urbanized communities than in counties with a population density under 100,000. Milk service was found less frequently in small schools than in larger ones and less frequently in the elementary grades than in high schools and combination grades.

Of the schools serving milk, the largest number operated under the National School Lunch Program; 66 percent of all these schools served milk under the Program. One-fourth of the schools serving milk had no lunch service, and the remaining 9 percent had plate lunch service not under the National School Lunch Program or a la carte services only (table 3). Of schools serving milk, the largest number had the elementary grades, small enrollments, and locations in the less densely populated areas.

Schools In Special Milk Program

During the survey month, some 67,000 or 63 percent of all public schools in the United States participated in the Special Milk Program (tables 4 and 5). The Special Milk Program was found in 84 percent of the schools serving a complete plate lunch under the National School Lunch Program, in 73 percent of other schools serving plate lunches, in 52 percent of those having a la carte service only, and in 38 percent of those without lunch service (table 4). Special Milk Program schools as well as all schools serving milk, were found most frequently in the Northeastern and Southeastern regions. Schools in the urbanized areas, larger schools, and combination grade schools were found to participate in the Special Milk Program to the highest degree.

4/ A la carte service is defined as a food service in which individual food items are offered to pupils free-choice with no provision for a pre-planned plate lunch.

Table 1.--Schools serving milk, schools participating in the Special Milk Program and all public schools in the United States by type of lunch service, March 1957 1/

	: Complete plate :	: Other :	: A la :	:	:
	: lunch under :	: plate :	: carte :	: None :	: Total :
Item	: National School:	: lunches :	: only :	:	:
	: Lunch Program :	:	:	:	:
	:	:	:	:	:
	: <u>Schools</u>	: <u>Schools</u>	: <u>Schools</u>	: <u>Schools</u>	: <u>Schools</u>
	:	:	:	:	:
Schools serving	:	:	:	:	:
milk.....	: 51,838	: 6,435	: 999	: 19,352	: 78,624
	:	:	:	:	:
Schools partici-	:	:	:	:	:
pating in the	:	:	:	:	:
Special Milk	:	:	:	:	:
Program.....	: 44,016	: 4,923	: 607	: 17,353	: 66,899
	:	:	:	:	:
All schools.....	: 52,522	: 6,798	: 1,169	: 45,477	: 105,966
	:	:	:	:	:
	:	:	:	:	:

1/ A complete tabulation of all schools by type of lunch service and by regions, population density, school size, and grades taught is given in Market Research Report No. 262, Participation of Schools and Pupils in School Lunch Programs in Elementary and Secondary Schools of the United States. U. S. Dept. Agr., August 1958.

Milk Sold

Some 409 million half-pints of milk, or half-pint equivalents, were sold in schools throughout the country in March 1957 (table 6). About half of the milk was consumed with plate lunches and the other half was sold at other times, as an a la carte item or as a supplement to packed lunches. Total milk sales in schools were heavily concentrated in those under the National School Lunch Program, which comprised 66 percent of all schools serving milk; pupils in these schools drank 322 million half-pints or 79 percent of all milk sold.

Of the 322 million half-pints sold in schools under the National School Lunch Program, 186 million were served with meals as a part of the lunch program, 131 million were sold other than with meals in schools having both the National School Lunch and Special Milk Programs, and 5 million half-pints of non-meal milk were sold in schools having only the National School Lunch Program.

Pupils in other schools serving plate lunches and in schools without feeding services each accounted for about 10 percent of total milk sales. The remaining 1.8 percent was consumed in schools with a la carte service only.

The Midwest exceeded other regions in consumption of milk per pupil in schools serving milk. In addition, total sales were greater in that region than in any other despite the relatively low percentage of schools serving milk in that area. However, the Midwest contains a larger number of schools than any other region. A relatively large volume of milk was sold in schools in the Northeast and Southeast--nearly as much as in the Midwest. ^{5/} Milk sales in the Southwest and West were only slightly more than half as much as in the other 3 regions.

More than half of the total milk sold was consumed by pupils in schools located in less densely populated counties. There was a large number of schools in such counties, but a relatively low percentage of them served milk. Highest consumption per pupil was found in the less densely populated counties. Large schools and elementary schools each accounted for more than half of the total quantity of milk sold (table 6). Milk consumption per pupil in schools serving milk was highest in schools having small enrollments and in the elementary and combination grades.

Pupils in schools participating in the Special Milk Program drank 367 million half-pints or 90 percent of the 409 million half-pints of milk sold during the survey month. Of the 367 million half-pints, 204 million were sold under the Special Milk Program and the remaining 163 million half-pints were consumed with meals as a part of the National School Lunch Program. The remaining 42 million half-pints were sold in schools not participating in the Special Milk Program (tables 7 and 8). The proportion of milk consumed by pupils in each type of feeding service was about the same for those schools operating under the Special Milk Program as for all schools serving milk, and in both groups of schools almost one-half was consumed with meals.

Together, the Special Milk and National School Lunch Programs account for about 390 million half-pints or 95 percent of all milk sold in public schools.

In addition to the 409 million half-pints of milk sold in schools in March 1957, some 30 million half-pints were served free to pupils. Milk given free to pupils accounted for approximately 7 percent of total consumption in all schools serving milk. For the most part, distribution of free milk by regions, population density, size of school, and grade level was of the same relative order of magnitude as that reported for milk distributed with lunches or sold as an a la carte item. More than 90 percent of the milk served free was in Special Milk Program schools (tables 9-11).

^{5/} For the States comprising each region, see table 2, Appendix.

Prices Paid For Milk

Pupils in schools participating in the Special Milk Program paid an average of 3.1 cents per half-pint of milk. The price was 5.9 cents in schools not in the program. For schools participating in both the National School Lunch and Special Milk Programs the average price paid was still lower-2.9 cents. In schools having no provision for lunch service but participating in the Special Milk Program, pupils paid an average of 3.3 cents per half-pint. The highest average price paid, 4.0 cents, in any group of schools operating under the program was in those offering a la carte service only (table 12). There was a wide range in the prices paid by pupils per half-pint of milk in both schools participating and schools not participating in the Special Milk Program. Average daily consumption per pupil tended to be higher in schools in the Special Milk Program, where prices were lower than in schools not in the program. For the most part, per capita consumption of milk was highest in small schools where prices paid per half-pint were generally lowest (table 13).

Vending Machine and Other Milk Service

Of the approximately 79,000 schools serving milk in March 1957, 96 percent had no milk vending machines, 3 percent had vending machines with no other service, and 1 percent had vending machines and other service. Use of vending machines was somewhat more prevalent in the Midwest than in other regions, in high schools, and outside the 21 largest metropolitan areas (table 14). 6/

Frequency of Milk Service

Schools were classified as those serving milk at noon only and those serving at noon and/or at other times. Approximately 43 percent of schools serving milk were in the first category and 57 percent in the second. A smaller percentage of schools serving milk at noon only than at noon and/or at other times held for National School Lunch Program schools and for those having no lunch service. But a higher proportion of schools serving milk at noon only was found in those having other plate lunches and in those with a la carte service only.

Milk service at noon and/or at other times was most popular in the Midwest and Southeast, in less densely populated counties, in schools with less than 500 pupils, and in schools having elementary and combination grades.

6/ It would have been desirable to compare non-meal milk consumption rates of pupils in schools having vending machines in addition to other serving methods with those in schools without such machines. To obtain data on non-meal milk consumption rates for schools utilizing vending machines would require a detailed study.

The average daily rate of milk consumption per pupil was higher in schools serving milk at noon and/or at other times than in schools serving only at noon. All types of lunch service, that is, complete plate lunch service under the National School Lunch Program, other plate lunch service, a la carte only, and milk service only, followed this pattern. Consumption per pupil was highest in schools serving at noon and/or at other times in the Midwest, with a rate of 1 half pint daily, as contrasted with 0.6 half pint in the Northeast. Also, on a national basis, per capita consumption was highest among pupils in schools situated in less densely populated areas, in small schools, and in schools having elementary and combination grades (tables 15 and 16).

APPENDIX

Methodology

For the study of milk consumption a random sample of approximately 5,000 individual public elementary and secondary schools throughout the United States was selected. As a result of the preparations for the 1957 Census of Governments, the Bureau of the Census compiled a complete card listing of all public school systems in operation as of October 1956, together with information for each system as to the number of individual schools operated. These cards were arranged by States. The districts or systems were sampled with probabilities proportionate to the number of schools in the district or system. All sample systems were then canvassed for lists (directories or other) of their individual schools. Schools were selected within the sampled systems so as to produce a self-weighting sample with the uniform-sampling fraction of 5/96. This yielded a sample of approximately 5,500 schools which was subsampled systematically at random to reduce the number to 5,000 schools for survey coverage.

The survey was conducted by mail, employing successively more intensive followup steps to stimulate response until the cut-off time for data collection, by which time a response rate considerably in excess of 90 percent had been attained.

Incoming materials were examined for internal consistency, conformance with instructions, completeness, and other quality standards. Where necessary, correspondence was undertaken to correct deficiencies and improve the accuracy of the reporting on all questions. Some replies were ascertained to be unusable for tabulation, and some schools were found to be closed as of the survey month. The net result was a sample of 4,347 schools providing usable information.

The method of expansion involved application of a factor (24.3722) to the reported information, and adding the results to obtain regional and national totals. As a result of rounding in the addition process, the reported national total of schools is 20 more than would have resulted from the direct application of the factor to the entire sample, without sub-

classification. The factor of 24.3722 is the ratio of all elementary and secondary public schools in the U. S. to such schools in the sample.

Variance calculations were made as to key measures within the framework of the foregoing sample description (tables 17 and 18). These calculations do not reflect possible biases because of nonresponses. It can be seen from these calculations that, although the sample was designed to produce national estimates, regional totals for much of the information have relatively low sampling variability. The formula used to compute sampling variations of the number of schools serving milk by type of lunch service is noted below:

$$v = \sqrt{\left(1 - \frac{n' \text{ reg.}}{N' \text{ Reg.}}\right) \left(\frac{1}{n' g} - \frac{1}{n' \text{ reg.}}\right)}$$

$N' \text{ Reg.}$ = total for region

$n' \text{ reg.}$ = sample in region

$n' g$ = number of positive answers for cell

Sampling variability as shown in tables 17 and 18 was calculated by dividing the standard deviation (v) by the estimated number of schools. To illustrate the use of sampling variability, consider the number of schools in the Northeast region offering milk as well as a plate lunch under the National School Lunch Program. An estimated 10,041 schools are included in this category, and in table 17 the coefficient of variation of this estimate is 3 percent. There are, therefore, about 2 chances out of 3 that the number of schools in the Northeast region offering milk as well as a complete lunch under the National School Lunch Program as determined by a complete census would be between 9,740 and 10,342.

Form SL-1 (2-13-57) U. S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS In cooperation with U. S. DEPARTMENT OF AGRICULTURE SURVEY OF SCHOOL FOOD SERVICES	Instructions - Please answer the questions on this form as of the month of March 1957 for the school plant shown in the address box. If exact figures as to some items are not available, enter estimates and mark with an asterisk (*). Please complete and return the white copy of the form promptly - within 10 days if possible.																
T0: Bureau of the Census, Governments Division, Washington 25, D. C.																	
Data supplied by																	
Name																	
Title																	
School																	
Address																	
School district																	
Section I - GENERAL INFORMATION																	
1. Total enrollment as of March 1, 1957 (Note: Please exclude kindergarten classes in answering this and all other questions on this form)..... 2. Of the March 1 enrollment, how many attended classes only on a half-day basis?.. 3. Grades taught in this school (show lowest, excluding kindergarten, and highest grades taught)..... to 4. Number of days this school was open in March.....	5. Proportion of students usually transported to and from school by bus (check one): ☐ None of the students ☐ Less than half of the students ☐ Half or more of the students 6. Does your school receive Federally donated surplus commodities? ☐ Yes ☐ No																
Section II - STUDENT LUNCHING ARRANGEMENTS AND FACILITIES																	
7. Does your school have a student lunchroom or a multipurpose room that is used as a lunchroom? ☐ Yes ☐ No If the answer to question 7 is "Yes," please answer questions 8, 9 and 10 as indicated.																	
8. Number of years since construction of: The lunchroom.. The kitchen.. 9. Number of years since last major modernization of: The lunchroom.. The kitchen..	10. a. How many students can be seated in the lunchroom at one time?..... b. Is the lunchroom (check one): ☐ In the school building? ☐ In a separate building on the school grounds? ☐ In a separate building off the school grounds?																
11. Where do most members of the school faculty eat (check one)? a. ☐ In the home room with students (meals prepared in school kitchen) b. ☐ In the lunchroom at tables with children c. ☐ In the lunchroom at separate faculty tables d. ☐ In a separate room or away from school	12. What proportion of the students of your school not using school lunch facilities follow each of the lunching practices listed below? (check one box on each line). <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Description</th> <th style="width: 12.5%;">None of the students</th> <th style="width: 12.5%;">Less than half of the students</th> <th style="width: 12.5%;">Half or more of the students</th> </tr> </thead> <tbody> <tr> <td>Usually go home for lunch</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Usually carry lunch</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Usually patronize commercial lunch facilities near school</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Description	None of the students	Less than half of the students	Half or more of the students	Usually go home for lunch				Usually carry lunch				Usually patronize commercial lunch facilities near school			
Description	None of the students	Less than half of the students	Half or more of the students														
Usually go home for lunch																	
Usually carry lunch																	
Usually patronize commercial lunch facilities near school																	
13. On the average, how many minutes are allowed students for the lunch period?..... (Minutes)																	
Continue form on reverse side																	

Section III - LUNCH SERVICE PROVIDED

14. Does your school provide any lunch service for students? ☐ Yes ☐ No If "Yes," please answer questions 15 through 27 below. If "No," skip to Section IV of the questionnaire.	16. Which of the kinds of lunch service listed below does your school provide (check one box)? ☐ National school lunch program (with or without other food service) ☐ Other complete plate lunch (with or without other food service) ☐ A la carte service only NOTE: For purposes of this questionnaire a "complete plate lunch" is a well-balanced, nutritious meal.
15. On how many days was lunch service provided during March?.....	26. Which of the following best describes the contribution made by the school or other local groups to the cost of the school lunch program? (Check one box) ☐ Contributes one-fourth or more of the total cost ☐ Contributes less than one-fourth the total cost ☐ Makes no contribution
17. Is the school lunch service operated on a nonprofit basis? ☐ Yes ☐ No	27. Check below to indicate which of the listed food items are offered to students regularly, individually priced, in addition to or in lieu of a complete preplanned plate lunch:
18. How many serving periods per day are necessary to provide lunch for all of the students served (check one box)? ☐ One period ☐ Three periods ☐ Two periods ☐ Four or more periods	☐ Soups ☐ Soft drinks ☐ Fruit and vegetable juices ☐ Ice cream ☐ Sandwiches ☐ Other desserts ☐ Bread and rolls ☐ Packaged snacks ☐ Meats ☐ Candy ☐ Vegetables ☐ Other (specify) _____ ☐ Fresh fruit _____ ☐ Whole milk _____ ☐ Chocolate drink _____
19. What were the total gross receipts from all food sales (plate lunch sales plus a la carte items) to students in March? \$ _____	
20. How many complete plate lunches were served to students during the month of March? (Exclude a la carte sales but include lunches served free-of-charge as well as lunches sold.) Total number served..... Number of these served free-of-charge.....	
21. What is the price to the student of one complete plate lunch? (if there are two or more plate lunch prices, report the one that accounts for the largest number of plate lunch sales.)..... (Cents)	
22. Does this price include dessert? ☐ Yes ☐ No	
23. Does this price include milk? ☐ Yes ☐ No	
24. Are students informed of each day's menu in advance? ☐ Yes ☐ No	
25. Who sponsors the lunch program? (Check one box): ☐ School ☐ Parent-Teachers' Association ☐ Other	

Section IV - MILK SERVICE

28. Indicate below the amount and unit prices of milk sold to students during March, including milk sold through vending machines, but not including milk served without extra charge as a part of the complete plate-lunch: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 30%;">Item</th> <th style="width: 20%;">Number of units sold</th> <th style="width: 20%;">Price per unit paid by students (Cents)</th> </tr> </thead> <tbody> <tr> <td>Half pints</td> <td></td> <td></td> </tr> <tr> <td>One-third quarts</td> <td></td> <td></td> </tr> <tr> <td>Pints</td> <td></td> <td></td> </tr> <tr> <td>Other (specify)</td> <td></td> <td></td> </tr> </tbody> </table>	Item	Number of units sold	Price per unit paid by students (Cents)	Half pints			One-third quarts			Pints			Other (specify)			29. How many half-pints of milk were served free-of-charge to students in March? (If not in half-pint units, please specify unit reported.)..... 30. Check which of the following boxes apply to milk service in your school: Milk is available: ☐ Before or after school ☐ At noon ☐ Morning ☐ Afternoon ☐ At no time 31. On how many days during March, was milk available to students? _____ 32. Kind of milk service to students: (Check): ☐ Vending machine ☐ Other 33. Is milk served in your school under the Special School Milk Program? ☐ Yes ☐ No
Item	Number of units sold	Price per unit paid by students (Cents)														
Half pints																
One-third quarts																
Pints																
Other (specify)																

Tables

Tables in the appendix show data for the Nation and each of the regions used by the Food Distribution Division, AMS. Breaks for population density, size of school, and grades taught are shown only for the United States. Regional breaks by the three factors are not published, as sampling variability which ranged from 0 to 100 percent, was considered too high and erratic.

Table 2.--Relation of schools serving milk to all schools: Percentage of schools serving milk by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 ^{1/}

Item	Schools serving milk, by type of lunch service						All schools, including those not serving milk
	Complete plate :	Other plate :	A la carte	None	Average of		
	lunch under :	lunches :	only :	:	schools serving:		
	National School:				milk		
Lunch Program :	Percent	Percent	Percent	Percent	Percent	Number	
United States total.....	98.7	95.0	85.4	42.6	74.2	105,966	
Regions 2/:							
Northeast.....	99.3	92.1	92.3	64.3	82.7	21,105	
Southeast.....	98.4	94.6	66.7	28.7	81.4	20,204	
Midwest.....	98.8	92.1	85.7	39.7	62.9	37,556	
Southwest.....	97.3	98.5	90.0	25.6	76.9	15,403	
West.....	100.0	96.8	88.9	41.0	79.2	11,698	
Population density:							
Counties less than 100,000.....	98.0	92.0	71.4	32.5	67.8	72,556	
Other counties and metrop. areas over 100,000 but less than 700,000.....	100.0	98.3	85.7	68.1	88.4	19,105	
21 largest metrop. areas.....	100.0	100.0	100.0	70.1	87.7	14,305	
Size of school:							
Under 250 pupils.....	96.5	89.2	50.0	34.0	58.0	59,342	
250-499 pupils.....	100.0	100.0	80.0	75.6	93.7	24,080	
500 or more pupils.....	100.0	100.0	97.0	73.9	96.0	22,544	
Grades taught:							
Elementary.....	98.2	93.1	72.2	42.1	68.5	80,544	
Junior and senior high.....	100.0	100.0	96.2	43.0	90.0	11,261	
Other 3/.....	99.2	100.0	75.0	53.0	93.8	14,161	

^{1/} The data are subject to sampling variance.

^{2/} Northeast: Maine, Delaware, New Hampshire, Vermont, Massachusetts, West Virginia, District of Columbia, Rhode Island, Connecticut, Maryland, Pennsylvania, New Jersey, New York.

Southeast: Florida, Tennessee, Mississippi, North Carolina, South Carolina, Alabama, Virginia, Georgia, Kentucky.

Midwest: Illinois, Ohio, Indiana, Iowa, North Dakota, South Dakota, Michigan, Missouri, Minnesota, Wisconsin.

Southwest: Kansas, Arkansas, Colorado, Oklahoma, Louisiana, New Mexico, Texas.

West: Montana, California, Utah, Wyoming, Washington, Nevada, Oregon, Arizona, Idaho.

^{3/} Combination of various grades.

Table 3.--Schools serving milk: Number and percentage by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate		Other plate		A la carte		None		Total, schools	
	Schools	Pct.	Schools	Pct.	Schools	Pct.	Schools	Pct.	Schools	Pct.
United States total.....	51,838	65.9	6,435	8.2	999	1.3	19,352	24.6	78,624	100.0
Regions 2/:										
Northeast.....	10,041	57.5	853	4.9	292	1.7	6,264	35.9	17,450	100.0
Southeast.....	13,648	83.0	1,291	7.8	146	.9	1,365	8.3	16,450	100.0
Midwest.....	12,527	53.0	1,999	8.5	146	.6	8,945	37.9	23,617	100.0
Southwest.....	8,944	75.5	1,561	13.2	220	1.9	1,120	9.4	11,845	100.0
West.....	6,678	72.1	731	7.9	195	2.1	1,658	17.9	9,262	100.0
Population density:										
Counties less than										
100,000.....	34,584	70.3	3,657	7.4	243	.5	10,700	21.8	49,184	100.0
Other counties and										
metrop. areas over										
100,000 but less										
than 700,000.....	10,479	62.1	1,438	8.5	439	2.6	4,533	26.8	16,889	100.0
21 largest metrop.										
areas.....	6,775	54.0	1,340	10.7	317	2.5	4,119	32.8	12,551	100.0
Size of school:										
Under 250 pupils.....	19,204	55.8	2,829	8.2	122	.4	12,259	35.6	34,414	100.0
250-499 pupils.....	16,452	72.9	1,413	6.3	98	.4	4,607	20.4	22,570	100.0
500 or more pupils.....	16,182	74.8	2,193	10.1	779	3.6	2,486	11.5	21,640	100.0
Grades taught:										
Elementary.....	32,610	59.1	4,605	8.3	316	.6	17,668	32.0	55,199	100.0
Junior and senior high..	7,578	74.7	1,122	11.1	608	6.0	829	8.2	10,137	100.0
Other 3/.....	11,650	87.7	708	5.3	75	.6	855	6.4	13,288	100.0

See footnotes to table 2.

Table 4.--Relation of Special Milk Program schools to all schools: Percentage of schools participating in the program by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	: Complete plate:		: Other plate lunches	: A la carte only	: None	: Average of schools in Special Milk Program		: All schools including those not serving milk	
	: lunch under National School Lunch Program	: National Lunch Program				: Percent	: Percent	: Percent	: Number
United States total.....	83.8	72.7	52.1	38.2	63.1	105,966			
Regions 2/:									
Northeast.....	83.4	86.8	38.5	56.0	70.2	21,105			
Southeast.....	85.1	83.9	44.4	27.2	70.9	20,204			
Midwest.....	88.8	70.8	71.4	36.8	56.5	37,556			
Southwest.....	75.1	53.8	40.0	23.3	57.6	15,403			
West.....	84.3	77.4	77.8	31.9	65.6	11,698			
Population density:									
Countries less than 100,000.....	81.0	69.9	57.1	30.5	57.4	72,556			
Other countries and metrop. areas over 100,000 but less than 700,000.....	87.2	81.7	47.6	58.2	75.6	19,105			
21 largest metrop. areas.....	92.8	70.9	53.8	58.1	75.6	14,305			
Size of school:									
Under 250 pupils.....	76.9	63.8	30.0	31.5	48.5	59,342			
250-499 pupils.....	86.7	86.2	20.0	65.6	81.0	24,080			
500 or more pupils.....	89.3	76.7	63.6	59.4	82.7	22,544			
Grades taught:									
Elementary.....	82.8	70.9	38.9	38.0	58.5	80,544			
Junior and senior high.....	86.5	76.1	65.4	34.2	75.3	11,261			
Other 3/.....	84.6	79.3	25.0	47.0	79.7	14,161			

See footnotes to table 2.

Table 5.--Schools in Special Milk Program: Number and percentage by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 ^{1/}

Item	Complete plate lunch under National School Lunch Program		Other plate lunches		A la carte only		None		Total schools in Special Milk Program	
	Schools	Pct.	Schools	Pct.	Schools	Pct.	Schools	Pct.	Schools	Pct.
United States total.....	44,016	65.8	4,923	7.4	607	0.9	17,353	25.9	66,899	100.0
Regions 2/:										
Northeast.....	8,433	57.0	804	5.4	122	.8	5,459	36.8	14,818	100.0
Southeast.....	11,796	82.3	1,145	8.0	97	.7	1,292	9.0	14,330	100.0
Midwest.....	11,259	53.1	1,536	7.2	121	.6	8,286	39.1	21,202	100.0
Southwest.....	6,897	77.8	853	9.6	97	1.1	1,024	11.5	8,871	100.0
West.....	5,631	73.4	585	7.6	170	2.2	1,292	16.8	7,678	100.0
Population density:										
Counties less than 100,000.....	28,589	68.7	2,779	6.7	194	.4	10,065	24.2	41,627	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	9,139	63.2	1,194	8.3	243	1.7	3,876	26.8	14,452	100.0
21 largest metrop. areas.....	6,288	58.1	950	8.8	170	1.6	3,412	31.5	10,820	100.0
Size of school:										
Under 250 pupils.....	15,305	53.2	2,022	7.0	73	.3	11,358	39.5	28,758	100.0
250-499 pupils.....	14,258	73.1	1,219	6.3	24	.1	3,997	20.5	19,498	100.0
500 or more pupils.....	14,453	77.5	1,682	9.0	510	2.8	1,998	10.7	18,643	100.0
Grades taught:										
Elementary.....	27,516	58.4	3,508	7.4	171	.4	15,939	33.8	47,134	100.0
Junior and senior high:	6,555	77.3	853	10.1	412	4.8	659	7.8	8,479	100.0
Other 3/.....	9,945	88.1	562	5.0	24	.2	755	6.7	11,286	100.0

See footnotes to table 2.

Table 6.--Milk sold in all schools serving milk: Quantity and percentage sold with meals or separately by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program			Other plate lunches			A la carte only		None		Total, in all schools serving milk	
	Milk with meals	Milk other than with meals	Pct.	Milk with meals	Milk other than with meals	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.
United States total.....	186,138	136,126	45.5	17,945	21,338	5.2	7,593	1.8	40,018	9.8	409,158	100.0
Regions 2/:												
Northeast.....	34,810	36,656	36.8	2,264	3,354	3.6	1,851	2.0	15,536	16.4	94,471	100.0
Southeast.....	57,535	28,596	58.7	4,482	4,948	5.0	601	.6	1,861	1.9	98,023	100.0
Midwest.....	39,769	35,426	38.2	5,146	6,146	5.9	1,283	1.2	16,270	15.6	104,040	100.0
Southwest.....	29,227	15,369	52.7	3,716	3,963	7.2	1,514	2.7	1,644	3.0	55,433	100.0
West.....	24,797	20,979	43.4	2,337	2,927	5.1	2,344	4.1	4,707	8.2	57,191	100.0
Population density:												
Counties less than 100,000.....	112,359	62,783	54.9	8,677	5,994	2.9	991	.5	13,967	6.8	204,771	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	49,340	34,945	43.9	5,460	7,714	6.9	3,318	2.9	11,566	10.3	112,343	100.0
21 largest metrop. areas.....	24,439	38,398	26.6	3,808	7,630	8.3	3,284	3.6	14,485	15.7	92,044	100.0
Size of school:												
Under 250 pupils.....	29,580	16,755	45.1	4,111	3,511	5.3	66	.1	11,620	17.7	65,643	100.0
250-499 pupils.....	60,049	35,710	50.7	4,113	4,953	3.4	328	.3	14,144	11.9	118,397	100.0
500 or more pupils.....	96,509	83,661	42.9	9,721	13,774	6.1	7,199	3.2	14,254	6.3	225,118	100.0
Grades taught:												
Elementary.....	102,030	69,713	44.5	11,151	10,460	4.6	799	.3	35,150	15.3	229,303	100.0
Junior and senior high.....	34,376	35,893	37.3	4,116	9,107	9.9	6,384	6.9	2,368	2.6	92,244	100.0
Other 3/.....	49,732	30,520	56.8	2,678	1,771	2.0	410	.5	2,500	2.8	87,611	100.0

See footnotes to table 2.

Table 7.--Milk sold in Special Milk Program schools: Quantity and percentage sold with meals or separately by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program				Other plate lunches				A la carte only		None		Total in schools in Special Milk Program	
	Milk with meals		Milk other than with meals		Milk with meals		Milk other than with meals							
	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.
United States total.....	1,000 ½ pints or equiv.	162,699	130,617	35.6	14,166	3.9	17,870	4.9	4,822	1.3	36,802	10.0	366,976	100.0
Regions 2/:														
Northeast.....	30,271	35.2	35,266	41.0	2,133	2.5	3,329	3.9	643	.7	14,424	16.7	86,066	100.0
Southeast.....	50,099	57.0	27,107	30.9	4,011	4.6	4,492	5.1	287	.3	1,812	2.1	87,808	100.0
Midwest.....	37,319	38.3	34,853	35.8	3,963	4.1	5,089	5.2	1,258	1.3	14,951	15.3	97,433	100.0
Southwest.....	23,190	52.1	14,084	31.6	2,263	5.1	2,715	6.1	756	1.7	1,520	3.4	44,528	100.0
West.....	21,820	42.7	19,307	37.7	1,796	3.5	2,245	4.4	1,878	3.7	4,095	8.0	51,141	100.0
Population density:														
Countries less than 100,000.....	96,555	52.7	60,085	32.8	6,673	3.6	5,579	3.1	946	.5	13,387	7.3	183,225	100.0
Other countries and metrop. areas over 100,000 but less than 700,000.....	43,285	42.8	33,571	33.2	4,915	4.9	7,147	7.1	1,828	1.8	10,373	10.2	101,119	100.0
21 largest metrop. areas..	22,859	27.7	36,961	44.7	2,578	3.1	5,144	6.2	2,048	2.5	13,042	15.8	82,632	100.0
Size of school:														
Under 250 pupils.....	24,034	41.6	16,129	28.0	3,328	5.8	3,352	5.8	29	.1	10,805	18.7	57,677	100.0
250-499 pupils.....	52,173	48.8	34,361	32.2	3,466	3.2	3,659	3.4	296	.3	12,934	12.1	106,889	100.0
500 or more pupils.....	86,492	42.7	80,127	39.6	7,372	3.6	10,859	5.4	4,497	2.2	13,063	6.5	202,410	100.0
Grades taught:														
Elementary.....	89,440	42.9	67,736	32.5	8,687	4.2	9,051	4.3	357	.2	33,184	15.9	208,455	100.0
Junior and senior high...	30,518	37.5	34,042	41.8	3,077	3.8	7,560	9.3	4,436	5.5	1,696	2.1	81,329	100.0
Other 3/.....	42,741	55.4	28,839	37.4	2,402	3.1	1,259	1.6	29	4/	1,922	2.5	77,192	100.0

See footnotes to table 2.
4/ Less than 0.05 percent.

Table 8.--Milk sold in non-program schools: Quantity and percentage sold with meals or separately in schools not participating in the Special Milk Program, by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program				Other plate lunches				A la carte only		None		Total in non-program schools	
	Milk with meals		Milk other than with meals		Milk with meals		Milk other than with meals		Milk with meals		Milk other than with meals		Total in non-program schools	
	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.
United States total.....	23,439	55.6	5,509	13.1	3,779	8.9	3,469	8.2	2,771	6.6	3,216	7.6	42,183	100.0
Regions 2/:														
Northeast.....	4,539	54.0	1,389	16.5	130	1.6	26	.3	1,208	14.4	1,113	13.2	8,405	100.0
Southeast.....	7,436	72.8	1,489	14.6	471	4.6	455	4.4	315	3.1	49	.5	10,215	100.0
Midwest.....	2,449	37.1	574	8.7	1,184	17.9	1,058	16.0	24	.4	1,318	19.9	6,607	100.0
Southwest.....	6,038	55.4	1,285	11.8	1,453	13.3	1,248	11.4	758	7.0	123	1.1	10,905	100.0
West.....	2,977	49.2	772	12.8	541	8.9	682	11.3	466	7.7	613	10.1	6,051	100.0
Population density:														
Counties less than 100,000.....	15,804	73.4	2,698	12.5	2,004	9.3	415	1.9	45	.2	580	2.7	21,546	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	6,054	53.9	1,374	12.2	545	4.9	567	5.1	1,490	13.3	1,194	10.6	11,224	100.0
21 largest metrop. areas..	1,581	16.8	1,437	15.3	1,230	13.1	2,487	26.4	1,236	13.1	1,442	15.3	9,413	100.0
Size of school:														
Under 250 pupils.....	5,546	69.6	626	7.9	783	9.8	159	2.0	37	.5	815	10.2	7,966	100.0
250-499 pupils.....	7,876	68.5	1,349	11.7	647	5.6	395	3.4	32	.3	1,210	10.5	11,509	100.0
500 or more pupils.....	10,017	44.1	3,534	15.6	2,349	10.4	2,915	12.8	2,702	11.9	1,191	5.2	22,708	100.0
Grades taught:														
Elementary.....	12,589	60.4	1,977	9.5	2,465	11.8	1,409	6.8	443	2.1	1,966	9.4	20,849	100.0
Junior and senior high.....	3,859	35.3	1,851	17.0	1,039	9.5	1,547	14.2	1,947	17.8	672	6.2	10,915	100.0
Other 3/.....	6,991	67.1	1,681	16.1	275	2.6	513	4.9	381	3.7	578	5.6	10,419	100.0

See footnotes to table 2.

Table 9.--Milk served free in all schools serving milk: Quantity and percentage served with meals or separately by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program				Other plate lunches				A la carte only		None		Total, in all schools serving milk	
	Milk with meals		Milk other than with meals		Milk with meals		Milk other than with meals							
	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.	1,000 1/2 pints or equiv.	Pct.
United States total.....	13,098	43.9	10,249	34.3	1,508	5.0	1,250	4.2	48	0.2	3,715	12.4	29,868	100.0
Regions 2/:														
Northeast.....	2,633	37.9	1,810	26.1	397	5.7	316	4.6	17	.2	1,766	25.5	6,939	100.0
Southeast.....	5,679	77.9	1,053	14.4	397	5.4	94	1.3	10	.1	62	.9	7,295	100.0
Midwest.....	1,760	20.6	4,374	51.1	192	2.2	595	7.0	16	.2	1,615	18.9	8,552	100.0
Southwest.....	1,987	43.4	1,971	43.0	409	8.9	92	2.0	--	--	124	2.7	4,583	100.0
West.....	1,039	41.6	1,041	41.7	113	4.5	153	6.1	5	.2	148	5.9	2,499	100.0
Population density:														
Counties less than 100,000.....	8,790	45.5	7,488	38.8	628	3.3	855	4.4	22	.1	1,524	7.9	19,307	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	2,451	56.6	967	22.3	420	9.8	61	1.4	4	.1	424	9.8	4,327	100.0
21 largest metrop. areas..	1,857	29.8	1,794	28.8	460	7.4	334	5.4	22	.3	1,767	28.3	6,234	100.0
Size of school:														
Under 250 pupils.....	2,348	28.5	3,205	38.9	456	5.5	590	7.1	22	.3	1,622	19.7	8,243	100.0
250-499 pupils.....	4,088	50.8	2,916	36.2	270	3.4	179	2.2	--	--	595	7.4	8,048	100.0
500 or more pupils.....	6,662	49.1	4,128	30.4	782	5.8	481	3.5	26	.2	1,498	11.0	13,577	100.0
Grades taught:														
Elementary.....	8,035	42.8	5,399	28.7	1,096	5.8	649	3.5	27	.1	3,583	19.1	18,789	100.0
Junior and senior high.....	1,548	52.7	1,072	36.5	209	7.1	58	2.0	21	.7	29	1.0	2,937	100.0
Other 3/.....	3,515	43.2	3,778	46.4	203	2.5	543	6.7	--	--	103	1.2	8,142	100.0

See footnotes to table 2.

Table 10.--Milk served free in Special Milk Program schools: Quantity and percentage served with meals or separately by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 ^{1/}

Item	Complete plate lunch under National School Lunch Program				Other plate lunches				A la carte only		None		Total, in Special Milk Program Schools	
	Milk with meals		Milk other than with meals		Milk with meals		Milk other than with meals							
	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.	1,000 $\frac{1}{2}$ pints or equiv.	Pct.
United States total.....	11,533	41.9	9,989	36.3	1,177	4.3	1,190	4.3	29	0.1	3,602	13.1	27,520	100.0
Regions ^{2/} :														
Northeast.....	2,241	35.0	1,783	27.9	317	5.0	316	4.9	--	--	1,740	27.2	6,397	100.0
Southeast.....	5,086	77.9	972	14.9	333	5.1	67	1.0	11	.2	62	.9	6,531	100.0
Midwest.....	1,614	19.4	4,353	52.4	159	1.9	582	7.0	13	.2	1,583	19.1	8,304	100.0
Southwest.....	1,647	41.4	1,853	46.5	307	7.7	73	1.8	--	--	102	2.6	3,982	100.0
West.....	945	41.0	1,028	44.6	61	2.6	152	6.6	5	.2	115	5.0	2,306	100.0
Population density:														
Counties less than 100,000.....	7,570	42.8	7,285	41.2	500	2.8	824	4.7	19	.1	1,490	8.4	17,688	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	2,227	57.3	910	23.4	302	7.8	33	.9	5	.1	407	10.5	3,884	100.0
21 largest metrop. areas..	1,736	29.2	1,794	30.1	375	6.3	333	5.6	5	.1	1,705	28.6	5,948	100.0
Size of school:														
Under 250 pupils.....	1,916	25.6	3,099	41.5	280	3.7	559	7.5	20	.3	1,598	21.4	7,472	100.0
250-499 pupils.....	3,569	48.3	2,835	38.4	252	3.4	179	2.4	--	--	556	7.5	7,391	100.0
500 or more pupils.....	6,048	47.8	4,055	32.0	645	5.1	452	3.6	9	.1	1,448	11.4	12,657	100.0
Grades taught:														
Elementary.....	7,123	41.1	5,241	30.2	869	5.0	597	3.5	24	.1	3,489	20.1	17,343	100.0
Junior and senior high....	1,381	52.3	1,061	40.1	127	4.8	58	2.2	5	.2	11	.4	2,643	100.0
Other ^{3/}	3,029	40.2	3,687	48.9	181	2.4	535	7.1	--	--	102	1.4	7,534	100.0

See footnotes to table 2.

Table 11.--Milk served free in non-program schools: Quantity and percentage served with meals or separately in schools not participating in the Special Milk Program, by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program				Other plate lunches				A la carte only				None				Total, in non-program schools			
	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.	1,000 ½ pints or equiv.	Pct.
United States total.....	1,565	66.6	260	11.1	331	14.1	60	2.6	20	0.8	113	4.8	2,349	100.0						
Regions 2/:																				
Northeast.....	392	72.3	27	5.0	80	14.8	--	--	17	3.1	26	4.8	542	100.0						
Southeast.....	593	77.6	80	10.5	63	8.2	28	3.7	--	--	4/	5/	764	100.0						
Midwest.....	146	58.9	21	8.5	34	13.7	12	4.8	3	1.2	32	12.9	248	100.0						
Southwest.....	340	56.5	119	19.8	102	16.9	19	3.2	--	--	22	3.6	602	100.0						
West.....	94	48.7	13	6.7	52	27.0	1	.5	--	--	33	17.1	193	100.0						
Population density:																				
Countries less than 100,000.....	1,221	75.4	202	12.4	128	7.9	32	2.0	3	.2	34	2.1	1,620	100.0						
Other counties and metrop. areas over 100,000 but less than 700,000.....	224	50.6	58	13.1	118	26.6	27	6.1	--	--	16	3.6	443	100.0						
21 largest metrop. areas..	120	42.0	--	--	85	29.7	1	.4	17	5.9	63	22.0	286	100.0						
Size of school:																				
Under 250 pupils.....	432	56.0	105	13.6	176	22.8	31	4.0	3	.4	25	3.2	772	100.0						
250-499 pupils.....	518	78.8	82	12.5	19	2.9	--	--	--	--	38	5.8	657	100.0						
500 or more pupils.....	615	66.8	73	7.9	136	14.8	29	3.2	17	1.9	50	5.4	920	100.0						
Grades taught:																				
Elementary.....	912	63.0	157	10.8	228	15.8	52	3.6	3	.2	95	6.6	1,447	100.0						
Junior and senior high....	167	56.6	12	4.1	81	27.4	--	--	17	5.8	18	6.1	295	100.0						
Other 3/.....	486	80.1	91	15.0	22	3.6	8	1.3	--	--	4/	5/	607	100.0						

See footnotes to table 2.
 1/ Less than 500 half-pints or equivalent.
 2/ Less than 0.05 percent.

Table 12.--Prices paid for milk: Average price paid per half-pint (or equivalent) by pupils in all schools serving milk by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	:Complete plate : : lunch under : Other plate : A la carte : : National School: lunches : None : : Lunch Program : : Schools: : Schools: : Schools: : : in : Other : in : Other : : Special: schools: Special: schools: in : Other : : Milk : schools: Milk : Milk : schools: Milk : : Program: : Program: : Program: : : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents											
	: Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents											
	: Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents											
	: Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents : Cents											
United States total.....	2.9	5.6	3.5	5.7	4.0	7.1	3.3	5.7	3.1	5.9		
Regions 2/:												
Northeast.....	3.1	6.3	2.9	4.0	4.0	8.3	3.7	5.6	3.3	6.7		
Southeast.....	3.3	6.0	4.3	5.5	5.2	8.3	4.4	6.1	3.5	6.2		
Midwest.....	2.1	4.9	2.8	5.9	3.8	8.0	2.6	6.0	2.4	5.8		
Southwest.....	3.0	5.8	4.0	6.0	4.6	6.5	3.5	7.0	3.2	6.1		
West.....	3.3	3.9	4.0	5.2	3.8	3.8	3.9	5.1	3.5	4.5		
Population density:												
Countries less than 100,000.....	2.6	5.5	3.3	6.1	4.5	9.6	3.2	5.7	2.8	5.6		
Other countries and metrop. areas over 100,000 but less than 700,000.....	3.2	5.7	3.8	5.4	4.2	7.5	3.7	6.0	3.4	6.3		
21 largest metrop. areas.....	3.1	5.9	3.5	5.7	3.7	6.4	3.2	5.5	3.2	5.8		
Size of school:												
Under 250 pupils.....	2.4	5.3	2.9	3.9	3.4	5.9	3.2	5.6	2.7	5.3		
250-499 pupils.....	2.7	5.4	3.3	6.1	3.0	7.2	3.4	5.4	2.9	5.5		
500 or more pupils.....	3.1	5.8	3.8	5.8	4.1	7.1	3.4	6.1	3.3	6.2		
Grades taught:												
Elementary.....	3.0	5.3	3.5	5.7	4.3	7.8	3.3	5.6	3.2	5.7		
Junior and senior high.....	3.1	5.9	3.5	6.0	4.0	7.2	4.0	7.0	3.3	6.4		
Other 3/.....	2.4	5.7	3.9	5.0	5.0	5.5	3.7	7.0	2.5	5.6		

See footnotes to table 2.

Table 13.--Consumption of milk: Average daily consumption of purchased milk per pupil in all schools serving milk by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	: Complete plate :		: Other plate :		: A la carte :		: None :		: All schools :	
	: lunch under :		: lunches :		: only :		: :		: serving milk :	
	: National School :		: :		: :		: :		: :	
	: Lunch Program :		: Schools :		: Schools :		: Schools :		: Schools :	
	: Schools :		: in :		: in :		: in :		: in :	
	: Special :		: Special :		: Special :		: Special :		: Special :	
	: Milk :		: Milk :		: Milk :		: Milk :		: Milk :	
	: Program :		: Program :		: Program :		: Program :		: Program :	
	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.	$\frac{1}{2}$ pt.
	or	or	or	or	or	or	or	or	or	or
	equiv.	equiv.	equiv.	equiv.	equiv.	equiv.	equiv.	equiv.	equiv.	equiv.
United States total.....	0.7	0.6	0.6	0.6	0.4	0.4	0.4	0.5	0.3	0.7
Regions 2/:										
Northeast.....	.7	.5	.6	.2	.3	.3	.3	.4	.2	.6
Southeast.....	.7	.6	.6	.5	.2	.2	.3	.3	.2	.7
Midwest.....	.8	.6	.8	.7	.8	.1	.6	.3	.3	.8
Southwest.....	.8	.5	.6	.5	.3	.5	.3	.3	.3	.7
West.....	.6	.6	.5	.6	.4	.8	.5	.3	.3	.6
Population density:										
Counties less than 100,000.....	.8	.6	.7	.6	.5	.1	.5	.2	.2	.7
Other counties and metrop. areas over 100,000 but less than 700,000.....	.8	.5	.6	.5	.3	.4	.5	.5	.2	.7
21 largest metrop. areas.....	.7	.5	.5	.6	.5	.3	.6	.5	.3	.6
Size of school:										
Under 250 pupils.....	1.0	.7	1.0	.5	.5	.2	.6	.4	.4	.9
250-499 pupils.....	.8	.6	.8	.7	1.2	0	.5	.3	.3	.7
500 or more pupils.....	.7	.5	.5	.6	.4	.4	.4	.4	.2	.6
Grades taught:										
Elementary.....	.7	.6	.7	.6	.2	.3	.5	.3	.3	.7
Junior and senior high.....	.6	.5	.7	.5	.4	.4	.3	.3	.2	.6
Other 3/.....	.8	.6	.4	.6	.1	.3	.3	.3	.1	.7

See footnotes to table 2.

Table 14.--Type of milk service: Number and percentage of schools employing vending machines and other types of milk service, by regions, population density, size of school, and grades taught, March 1957 1/

Item	Vending machine only		Other service		Vending machine and other		Total schools serving milk	
	Schools	Percent	Schools	Percent	Schools	Percent	Schools	Percent
United States total.....	2,508	3.2	75,485	96.0	631	0.8	78,624	100.0
Regions 2/:								
Northeast.....	536	3.1	16,841	96.5	73	.4	17,450	100.0
Southeast.....	316	1.9	16,013	97.4	121	.7	16,450	100.0
Midwest.....	1,340	5.7	21,961	93.0	316	1.3	23,617	100.0
Southwest.....	195	1.6	11,553	97.6	97	.8	11,845	100.0
West.....	121	1.3	9,117	98.4	24	.3	9,262	100.0
Population density:								
Counties less than 100,000.....	1,558	3.2	47,164	95.9	462	.9	49,184	100.0
Other counties and metrop. areas over 100,000 but less than 700,000.....	755	4.5	16,013	94.8	121	.7	16,889	100.0
21 largest metrop. areas..	195	1.6	12,308	98.0	48	.4	12,551	100.0
Size of school:								
Under 250 pupils.....	827	2.4	33,417	97.1	170	.5	34,414	100.0
250-499 pupils.....	853	3.8	21,547	95.4	170	.8	22,570	100.0
500 or more pupils.....	828	3.8	20,521	94.9	291	1.3	21,640	100.0
Grades taught:								
Elementary.....	1,023	1.9	53,934	97.7	242	.4	55,199	100.0
Junior and senior high....	706	7.0	9,212	90.8	219	2.2	10,137	100.0
Other 3/.....	779	5.9	12,339	92.8	170	1.3	13,288	100.0

See footnotes to table 2.

Table 15.--Frequency of milk service: Percentage of schools according to time milk is available, by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 1/

Item	Complete plate lunch under National School Lunch Program			Other plate lunches			A la carte only			None			Total, schools serving milk		
	At noon:			At noon:			At noon:			At noon:			At noon:		
	At noon only	and/or Total	times	At noon only	and/or Total	times	At noon only	and/or Total	times	At noon only	and/or Total	times	At noon only	and/or Total	times
United States total:	44.4	55.6	100.0	54.4	45.5	100.0	58.6	41.4	100.0	35.1	64.9	100.0	43.1	56.9	100.0
Regions 2/:															
Northeast.....	58.3	41.7	100.0	54.3	45.7	100.0	66.8	33.2	100.0	32.3	67.7	100.0	48.9	51.1	100.0
Southeast.....	35.2	64.8	100.0	43.5	56.5	100.0	66.4	33.6	100.0	48.2	51.8	100.0	37.2	62.8	100.0
Midwest.....	34.0	66.0	100.0	52.4	47.6	100.0	66.4	33.6	100.0	34.1	65.9	100.0	35.8	64.2	100.0
Southwest.....	48.5	51.5	100.0	64.0	36.0	100.0	77.7	22.3	100.0	37.0	63.0	100.0	50.0	50.0	100.0
West.....	56.2	43.8	100.0	59.9	40.1	100.0	12.8	87.2	100.0	39.7	60.3	100.0	52.6	47.4	100.0
Population density:															
Counties less than 100,000.....	40.4	59.6	100.0	56.6	43.4	100.0	60.1	39.9	100.0	33.5	66.5	100.0	40.2	59.8	100.0
Other counties and metrop. areas: over 100,000 but less than 700,000.....	54.0	46.0	100.0	55.9	44.1	100.0	55.4	44.6	100.0	34.9	65.1	100.0	49.1	50.9	100.0
21 largest metrop. areas....	50.0	50.0	100.0	47.3	52.7	100.0	61.8	38.2	100.0	39.6	60.4	100.0	46.6	53.4	100.0
Size of school:															
Under 250 pupils..	41.0	59.0	100.0	51.7	48.3	100.0	40.2	59.8	100.0	36.2	63.8	100.0	40.2	59.8	100.0
250-499 pupils....	40.9	59.1	100.0	53.5	46.5	100.0	75.5	24.5	100.0	33.9	66.1	100.0	40.4	59.6	100.0
500 or more pupils.....	51.9	48.1	100.0	58.9	41.1	100.0	59.3	40.7	100.0	32.4	67.6	100.0	50.7	49.3	100.0
Grades taught:															
Elementary.....	41.6	58.4	100.0	50.8	49.2	100.0	53.8	46.2	100.0	34.2	65.8	100.0	40.1	59.9	100.0
Junior and senior high.....	72.7	27.3	100.0	78.3	21.7	100.0	64.1	35.9	100.0	49.9	50.1	100.0	70.9	29.1	100.0
Other 3/.....	33.7	66.3	100.0	41.2	58.8	100.0	33.3	66.7	100.0	39.8	60.2	100.0	34.5	65.5	100.0

See footnotes to table 2.

Table 16.--Consumption of milk by frequency of service: Average daily consumption per pupil in schools according to time milk is available, by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 ¹/₁

Item	Complete plate lunch				Other plate lunches				A la carte only				None				Average in schools serving milk			
	under National School Lunch Program																			
	At noon only	At noon only	Average	At noon only	At noon only	Average	At noon only	Average	At noon only	Average	At noon only	Average	At noon only	Average	At noon only	Average	At noon only	Average	At noon only	Average
	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.	1 pt. or equiv.
United States total.	.7	.9	.8	.6	.8	.6	.3	.4	.4	.4	.5	.6	.5	.5	.6	.8	.7	.6	.8	.7
Regions 2/:																				
Northeast.....	.7	.8	.8	.5	.8	.6	.3	.4	.3	.4	.5	.6	.5	.3	.6	.6	.6	.6	.8	.6
Southeast.....	.7	.8	.8	.6	.6	.7	.2	.3	.2	.4	.3	.4	.3	.6	.6	.6	.6	.8	.7	.8
Midwest.....	.7	1.1	.9	.8	1.1	.9	.7	1.1	.7	.5	.6	.5	.6	.4	.6	1.0	.8	.8	.7	.7
Southwest.....	.7	.9	.8	.6	.5	.6	.3	.4	.4	.3	.4	.3	.4	.4	.7	.8	.7	.8	.7	.6
West.....	.6	.8	.7	.5	.6	.6	.2	.5	.5	.5	.2	.5	.4	.4	.6	.7	.6	.7	.7	.6
Population density:																				
Counties less than 100,000.....	.7	.9	.8	.6	1.0	.8	.5	.3	.4	.4	.6	.4	.5	.6	.6	.9	.8	.8	.9	.8
Other counties and metrop. areas: over 100,000 but less than 700,000.....	.7	.9	.8	.6	.7	.7	.3	.4	.3	.4	.4	.4	.4	.4	.6	.7	.7	.7	.6	.7
21 largest metrop. areas.....	.6	.8	.7	.5	.6	.6	.3	.5	.4	.5	.5	.5	.5	.5	.6	.7	.6	.7	.6	.6
Size of school:																				
Under 250 pupils.....	.9	1.2	1.1	.8	1.2	1.0	.4	.4	.4	.6	.6	.6	.6	.6	.8	1.0	.9	.8	.9	.9
250-499 pupils.....	.7	1.0	.8	.7	.9	.8	.5	0	.4	.4	.5	.5	.5	.4	.7	.8	.8	.8	.8	.8
500 or more pupils.....	.6	.8	.7	.5	.6	.6	.3	.4	.4	.4	.3	.4	.5	.4	.6	.8	.6	.8	.6	.6
Grades taught:																				
Elementary.....	.7	.9	.8	.6	.8	.7	.3	.3	.3	.5	.5	.5	.5	.5	.6	.8	.7	.6	.7	.7
Junior and senior high.....	.6	.7	.7	.4	.7	.5	.3	.5	.4	.2	.4	.4	.4	.4	.6	.6	.6	.6	.6	.6
Other 3/.....	.7	.9	.8	.5	.7	.6	.1	.3	.2	.3	.5	.3	.5	.5	.7	.8	.8	.8	.8	.8

See footnotes to table 2.

Table 17.---Sampling error, schools serving milk: Sampling error of estimates of number of schools serving milk by type of lunch service, and by regions, population density, size of school, grades taught, March 1957 1/

Item	:Complete plate lunch:		:Other plate lunches:		:A la carte only:		:None:	
	:under National School Lunch Program	Percent	:Other plate lunches:	Percent	:A la carte only:	Percent	:None:	Percent
United States total.....	0		6		15		3	
Regions 2/:								
Northeast.....	3		16		28		5	
Southeast.....	3		13		40		13	
Midwest.....	3		10		40		4	
Southwest.....	3		12		32		14	
West.....	3		17		34		11	
Population density:								
Counties less than 100,000.....	3		8		31		4	
Other counties and metrop. areas over 100,000 but less than 700,000.....	4		13		23		7	
21 largest metrop. areas..	6		13		27		8	
Size of school:								
Under 250 pupils.....	3		9		44		4	
250-499 pupils.....	3		13		49		7	
500 or more pupils.....	12		10		17		10	
Grades taught:								
Elementary.....	3		7		27		3	
Junior and senior high.....	5		14		20		17	
Other 3/.....	4		18		56		17	

See footnotes to table 2.

NOTE: All sampling errors shown are coefficients of variation at the one sigma level. At this level, the chances are 2 out of 3 that the quantities estimated in this survey would differ from the results of a complete census by less than the percentages shown (there are about 19 chances out of 20 that the quantities estimated from this survey would differ from the results of a complete census by less than twice the percentage shown).

Table 18.--Sampling error, milk sold: Sampling error of estimates of total milk sold with meals and separately in schools participating in the Special Milk Program, by type of lunch service, and by regions, population density, size of school, and grades taught, March 1957 ^{1/}

Item	Complete plate lunch under National School Lunch Program			Other plate lunches			A la carte only			None			Total		
	Milk with meals			Milk other than with meals			Milk with meals			Milk other than with meals			Milk with meals		
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
United States total.....	2	4		10	12		27	6		2		3			
Regions ^{2/} :															
Northeast.....	7	9		25	24		56	9		7		6			
Southeast.....	5	7		20	21		64	22		5		7			
Midwest.....	6	7		19	27		59	10		5		6			
Southwest.....	8	10		22	37		61	23		7		9			
West.....	8	11		23	30		49	19		7		9			
Population density:															
Counties less than 100,000.....	3	4		13	19		59	8		2		4			
Other counties and metrop. areas over 100,000 but less than 700,000.....	6	7		19	22		40	11		5		6			
21 largest metrop. areas..	8	9		21	23		46	12		7		7			
Size of school:															
Under 250 pupils.....	4	6		19	32		75	6		4		5			
250-499 pupils.....	4	5		17	20		100	9		3		4			
500 or more pupils.....	4	6		15	17		29	13		3		5			
Grades taught:															
Elementary.....	3	4		12	13		47	6		2		3			
Junior and senior high...	7	10		24	24		30	26		7		9			
Other ^{3/}	6	8		24	41		100	28		4		7			

See footnotes to table 2.

NOTE: All sampling errors shown are coefficients of variation at the one sigma level. At this level, the chances are 2 out of 3 that the quantities estimated in this survey would differ from the results of a complete census by less than the percentages shown (there are about 19 chances out of 20 that the quantities estimated from this survey would differ from the results of a complete census by less than twice the percentage shown).

Anderson, Kenneth Eugene, 1926—

Milk consumption in the Nation's schools. . [Washington,
U. S. Govt. Print. Off., 1958]

29 p. illus., tables. 27 cm. (U. S. Dept. of Agriculture. Market-
ing research report no. 284)

Bibliographical footnotes.

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